

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- ***O. D. Kingsley, Jr., Vice President, Nuclear Operations
- ***L. F. Dale, Director, Licensing and Safety
- ***J. G. Cesare, Manager, Nuclear Operations
- ***J. E. Cross, Site Director
 - *P. B. Benedict, Emergency Planning Coordinator
 - *J. Moore, Vice President Corporate Communications
 - *T. Cloninger, Vice President, Nuclear Engineering and Support
 - *V. Parrish, Chemistry/Radiation Superintendent
 - *G. O. Smith, Supervisor, Environmental Services
 - *J. Vincelli, Radiation Control Supervisor
 - *C. Brown, Health Physics Supervisor
 - *J. G. Hurley, Emergency Planning Specialist

Other licensee employees contacted included engineers, technicians, operators, mechanics, security force members, and office personnel.

Other Organizations

- *G. O. Smith, Tenera (Emergency Planning Consultant)
- *M. Hill, Enercon Services (Emergency Planning Consultant)
- *D. Schneck, Tenera (Emergency Planning Consultant)

NRC Resident Inspector

- **R. Butcher

*Attended exit interview

**Attended Special Meeting (NRC Region II, December 13, 1985)

***Attended both exit interview and Special Meeting (NRC Region II, December 13, 1985)

2. Exit Interview (30703)

The inspection scope and findings were summarized on December 4, 1985, with those persons indicated in Paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed herein. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

As a consequence of the exercise findings, the licensee requested a meeting with the NRC. Licensee management representatives met with NRC Regional management on December 13, 1985, to review the findings and discuss planned corrective actions and the scheduled completion thereof. The licensee

committed to submit a letter to the NRC documenting the corrective actions defined, including training, remedial drills, and schedules.

3. Licensee Action on Previous Enforcement Matters

(Closed) Violation 50-416/85-15-01, 50-417/85-15-01: Failure to Train Offsite Firefighters. Inspection of training records and related documents, including attendance rosters, disclosed that the subject requirements were met during the 1985 calendar year. The corrective action was consistent with the commitments defined in the licensee's letter of July 3, 1985.

4. Exercise Scenario (82301)

The scenario for the emergency exercise was reviewed to assure that provisions were made to test the integrated capability and a major portion of the basic elements defined in the licensee's emergency plan and organization pursuant to 10 CFR 50.47(b)(14), Paragraph IV.F of Appendix E to 10 CFR 50, and specific criteria defined in Section II.N of NUREG-0654, Revision 1.

The scenario was reviewed in advance of the scheduled exercise and was discussed in detail with licensee representatives on November 26, 1985, and December 2, 1985. The scenario developed for this exercise was detailed, and designed to fully exercise the onsite emergency organization. It appeared, however, that the scenario was exceedingly rigid and placed severe demands on the response organization. These demands were particularly noticeable in the following instances: (1) challenging the Operations Support Center's (OSC) capability to provide and deploy required investigative and repair teams; (2) the diverse source terms generated in response to the States of Mississippi and Louisiana exercise requirements; (3) delay in Control Room staff initiating response to the reported simulated sequence of events. Notwithstanding the above, the scenario was consistent with the intent of the cited regulatory requirement and guidance.

The licensee made a large commitment to training and personnel through the use of controllers, evaluators, and required personnel participating in the exercise. Note, however, that training weaknesses were identified in the areas of dose assessment and offsite radiological monitoring as discussed in paragraphs 10.d.4 and 11, respectively.

No violations or deviations were identified.

5. Assignment of Responsibility (83201)

This area was observed to assure that primary responsibilities for emergency response by the licensee were established, and that adequate staff was available to respond to an emergency pursuant to 10 CFR 50.47(b)(1), Paragraph IV.A of Appendix E to 10 CFR 50, and specific criteria defined in Section II.A of NUREG-0654, Revision 1.

The inspector observed that specific emergency assignments were made for the licensee's emergency response organization, and that adequate staff was available to respond to the simulated emergency. The initial response organization was augmented by designated licensee representatives; however, based on the scenario scope and conditions, long term or continuous staffing of the emergency response organization was not required. Discussions with licensee representatives indicated that sufficient technical personnel were available to provide for continuous staffing of the augmented emergency organization if needed.

The inspector also observed activation, staffing, and operation of the emergency organization in the Technical Support Center (TSC), Operations Support Center (OSC), and Emergency Operations Facility (EOF). At each emergency response facility, the required staffing and assignment of responsibility was consistent with the licensee's approved procedures.

No violations or deviations were identified.

6. Onsite Emergency Organization (82301)

The licensee's onsite emergency organization was observed to assure that the following requirements were implemented pursuant to 10 CFR 50.47(b)(2), Paragraph IV.A of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.B of NUREG-0654, Revision 1: (1) specific definition of responsibilities for emergency response; (2) adequate staffing to assure initial facility accident response in key functional areas at all times; (3) specification of onsite and offsite support organizational interactions.

The inspector observed that the initial onsite emergency organization was adequately defined and that staff was available to fill key functional positions within the emergency organization. Augmentation of the initial emergency response organization was accomplished through mobilization of off-shift personnel. The on-duty Shift Supervisor assumed the duties of Emergency Director promptly upon initiation of the simulated emergency and directed the response until relieved by the Station Manager. Delay in initiation of response was observed, however, because of the detailed definition and treatment of the sequence of accident events.

Required interaction between the licensee's emergency response organization and State and offsite support agencies was adequate and consistent with the scope of the exercise prior to activation of the Emergency Operation Facility (EOF). Following activation of the EOF, however, a significant change in implementing required followup notification messages was noted. This finding is discussed in Paragraph 8, below.

No violations or deviations were identified.

7. Emergency Classification System (83201)

This area was observed to assure that a standard emergency classification and action level scheme was in use by the nuclear facility licensee pursuant

to 10 CFR 50.47(b)(4), Paragraph IV.C of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II D of NUREG-0654, Revision 1.

An emergency action level matrix was used to promptly identify and properly classify the emergency and escalate to more severe emergency classifications as the simulated emergency progressed. Licensee actions in this area were considered adequate.

An inspector observed that the emergency classification system was effectively used and was consistent with the Radiological Emergency Plan and Implementing Procedures. The system appeared to be adequate for the classification of the simulated accident sequences. The emergency procedures provided for initial and continuing mitigating actions during the simulated emergency.

No violations or deviations were identified.

8. Notification Methods and Procedures (83201)

This area was observed to assure that procedures were established for notification of State and local response organizations and emergency personnel by the licensee, and that the content of initial and followup messages to response organizations was established. This area was further observed to assure that means to provide early notification to the populace within the plume exposure pathway were established pursuant to 10 CFR 50.47(b)(5), Paragraph IV.D of Appendix E to 10 CFR 50, and specific criteria defined in Section II.E of NUREG-0654.

Prior to activation of the EOF, it was observed that notification methods and procedures were established and consistently used to provide information concerning the simulated emergency conditions to Federal, State and local response organizations, and to alert the licensee's augmented emergency response organization. Telephone notification of State and local response organizations was promptly followed by transmission of hard copies of the notification to these organizations and the licensee's Emergency News Media Center (ENMC).

Following activation and routine operation of the EOF, however, it was observed that the licensee consistently failed to implement followup notification (FUN) messages to the States and offsite agencies as required by Section 6.1.9 of Emergency Plan Procedure 10-S-01-6, Revision 10 (Notification of Offsite Agencies and Plant-On-Call Emergency Personnel). The subject procedure required that following activation of the Technical Support Center (TSC) and EOF, the followup notification form must be filled out and transmitted as new information becomes available, or every 30 minutes, whichever comes first. Consistent with this procedure, the EOF Communicator assumes responsibility for all further communications/notifications to offsite agencies. Observations confirmed a delay of 54 minutes in transmission of site boundary thyroid dose data. Other radiological data was typically delayed 35 to 45 minutes prior to transmission of FUN messages.

Based on the above findings, the licensee was informed that failure to follow the referenced procedure regarding FUN messages constituted an exercise weakness (50-416/85-44-01, 50-417/85-08-01). The licensee acknowledged the finding. This item was fully discussed during the exercise critique, and was later discussed during a meeting between licensee and NRC Regional management held on December 13, 1985. The licensee committed to implement required corrective action, including additional personnel training.

No violations or deviations were identified.

9. Emergency Communications (83201)

This area was observed to assure that provisions for prompt communications among principal response organizations and emergency personnel was established and maintained pursuant to 10 CFR 50.47(b)(6), Paragraph IV.E of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.F of NUREG-0654, Revision 1.

Communications among the licensee's emergency response facilities and emergency organization were adequate and consistent with approved Emergency Plan procedures and the scope of the exercise. Communications between the licensee's response organization and the State and local offsite agencies were adequate, except as discussed in Paragraph 8, above.

No violations or deviations were identified.

10. Emergency Facilities and Equipment (83201)

This area was observed to assure that adequate emergency facilities and equipment to support an emergency response were provided and maintained pursuant to 10 CFR 50.47(b)(8), Paragraph IV.E of Appendix E to 10 CFR 50, and specific criteria defined in Section II.H of NUREG-0654, Revision 1. The inspectors observed the activation, staffing, and operation of the emergency response facilities and evaluated the equipment provided for emergency use during the exercise.

- a. Control Room - The inspector observed that following review and analysis of the sequence of accident events, reactor Control Room operations personnel acted promptly to initiate required responses to the simulated emergency. Emergency procedures were readily available, routinely followed, and factored into accident assessment and mitigation exercises.

Control Room personnel involvement was essentially limited to those personnel assigned routine and special operational duties. Effective management of personnel gaining access to the Control Room precluded overcrowding, and maintained an ambient noise level required for the orderly conduct of operations under emergency conditions.

The Shift Supervisor and the Control Room operators were cognizant of their duties, responsibilities, and authorities. These personnel demonstrated an understanding of the emergency classification system and the proficient use of specific procedures to determine and declare the proper emergency classification.

It was observed that the voluminous data and information provided as the scenario initial sequence of accident events and conditions placed extraordinary demands upon the Emergency Director and the Control Room Staff in initiating the exercise in a timely manner. The Control Room staff, however, demonstrated the capability to effectively assess the initial conditions and implement required mitigating actions.

- b. Technical Support Center (TSC) - The TSC was activated and promptly staffed following notification by the Emergency Director of the simulated emergency conditions leading to the Alert classification. The facility staff appeared to be cognizant of their emergency duties, authorities, and responsibilities. Required operations at the facility proceeded in an orderly manner. This facility was provided with adequate equipment for support of the assigned staff. TSC security was promptly established.

The independent ventilation system was actuated during the exercise. During operation of this facility, radiological habitability was routinely monitored. Dedicated communicators were assigned to the facility and all required notifications were promptly implemented.

Status boards were strategically located to facilitate viewing by the TSC staff. Status boards were frequently updated as required to chronicle changes in plant status, accident assessment and mitigation throughout the exercise. The inspectors noted that a status board dedicated to trending of simulated plant systems status and engineering data was maintained and updated during the accident sequence.

- c. Operations Support Center (OSC) - The OSC was promptly staffed following activation of the emergency plan by the Emergency Director. It was observed that teams were promptly assembled, briefed, and prepared for deployment. The OSC Supervisor appeared to be cognizant of his duties and responsibilities. During operation of this facility, radiological habitability was routinely monitored and documented.

It was observed that the OSC could not meet the demands of the exercise scenario. Such demands exceeded the number of augmented personnel and emergency teams routinely available to the facility during emergency conditions. It was also observed however that the OSC supervisor demonstrated the required ability to discern and select those conditions which warranted priority, and promptly provided the required investigative and repair teams.

- d. Emergency Operations Facility (EOF) - The EOF is located in the Training Building located approximately $\frac{1}{4}$ mile from the plant site

boundary.² The facility was adequately equipped and staffed to support an emergency response.

EOF security was promptly established during facility activation and was maintained throughout the duration of the exercise. During operation of the facility, radiological habitability was routinely monitored. Status boards and other related visual aids were strategically located and were readily accessible for viewing by the EOF staff. Dedicated communicators were assigned to the facility to assure that all required notifications were promptly implemented; however, as discussed in Paragraph 8, above, significant delays in issuance of FUN messages were observed.

Inspection disclosed the following additional findings, namely: (1) assumption of duties by the EOF Director was definite and firm; (2) staff briefings were frequent and consistent with changes in plant status, and progress in accident assessment and mitigation; (3) communications between the EOF and the other emergency response facilities were effective; (4) engineering and other technical support functions, including the States of Louisiana and Mississippi dose assessment groups, were readily accommodated within the facility. Interaction among the facility technical groups appeared adequate.

The findings detailed below were also identified.

- (1) Section 5.2.4.c of Corporate Emergency Plan Procedure (CEPP) No. 4.9, requires periodic sampling of air in the EOF in the area where the majority of personnel are assembled. Because of the loud noise made by the sampler, EOF staff objected and requested that further sampling be deleted. Air sampling was immediately stopped. During the remainder of the exercise, sampling was simulated. This finding is classified as an exercise weakness (50-417/85-44-02, 50-417/85-08-02) based on failure to implement air sampling consistent with procedural requirements and the scope of the exercise. This finding was fully discussed with the licensee during the exercise critique and the Special Meeting previously referenced. The licensee acknowledged the finding and committed to implement corrective action.
- (2) The Corporate Emergency Plan Procedure (CEPP) No. 4.5 (Activation and Operation of the Emergency Operations Facility) appears to be inadequate. It does not provide the requirement to isolate the EOF via actuating the H&V ventilation system should this become necessary during a radiological release. The requirement to actuate the EOF ventilation system was consistent with the scope of the exercise.

The above procedure will be reviewed during subsequent inspections (IFI 50-416/85-44-03, 50-417/85-03). This item was discussed in detail during the exercise critique. The licensee acknowledged this finding.

- (3) Attachment I to procedure EPP No. 10-S-01-12 does not provide conversion factors for shutdown times greater than 12.5 hours. Shutdown time for the exercise was 384 hours. This finding was fully discussed during the exercise critique and the previously referenced meeting with licensee management on December 13, 1985. The licensee acknowledged this finding.

This procedure will be reviewed during subsequent inspections (IFI 50-416/85-44-04, 50-417/85-08-04).

- (4) The dose assessment group and the function thereof appeared confused and disorganized, and consistently issued questionable dose projections. For example, a radiological assessment message was developed which projected a thyroid dose at the site boundary representing an increase of 100 to 1000 over any value calculated during the preceding hour. Iterations of this type were consistently repeated during the course of the exercise. This failure indicates a lack of required training of the subject group and, as such, constituted an exercise weakness (50-416/85-44-05, 50-417/85-08-05). This finding was discussed in detail during the exercise critique, and the previously referenced meeting of December 13, 1985. The licensee acknowledged this finding and committed to implement required corrective actions including remedial drills.

No violations or deviations were identified regarding emergency response facilities and equipment.

11. Accident Assessment (82301)

This area was observed to assure that adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition were in use as required by 10 CFR 50.47(b)(9), Paragraph IV.B of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.I of NUREG-0654, Revision 1.

The accident assessment program included assessment of plant systems and status, and the effects of resulting radiological hazards to onsite and offsite personnel. During the exercise, the engineering accident assessment team functioned effectively in analyzing plant status to provide recommendations to the Site Emergency Manager regarding mitigating actions required to reduce damage to plant systems, prevent releases of radioactive materials, and terminate the emergency condition.

Radiological assessment activities involving in-plant and offsite monitoring were conducted by licensee radiation monitoring teams. Offsite radiological effluent data was reported to the TSC as appropriate. EOF dose assessments and projections as computed and based on data transmitted by the offsite monitoring group is discussed in Paragraph 10, above.

Three offsite radiological monitoring/survey teams were deployed by the licensee during the exercise. One team, designated the Red team; was evaluated. Observations of this team disclosed the findings detailed below.

- a. Excessive prompting by the assigned controller was observed throughout the field exercises.
- b. Poor contamination practices and controls were observed, namely: failure to use or simulate use of protective clothing when required; inadequate control precluding sample cross-contamination as stated in Section 5.H of Corporate Emergency Procedure 4.8; failure to survey vehicle; contaminated waste inadequately segregated from clean items.
- c. During plume monitoring, beta/gamma readings were not taken as required by Emergency Plan Procedure 10-S-01-14 and Corporate Emergency Procedure 4.8.
- d. No source checks were performed on survey/monitoring instruments prior to deployment.
- e. Players did not appear to be familiar with field sample locations, field calculations, and required procedures.

These findings indicated a lack of adequate training and, as such, constituted an exercise weakness (50-416/85-44-06, 50-417/85-08-06). This finding was discussed in detail at the exercise critique and the Special Meeting previously referenced. The licensee acknowledged the finding, and committed to implement required corrective action.

No violations or deviations were identified.

12. Public Education and Information (82301)

This area was observed to assure that information concerning the simulated emergency was made available for dissemination to the public as required by 10 CFR 50.47(b)(7), Paragraph IV.D of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.G of NUREG-0654, Revision 1.

Information was provided to the media and the public in advance of the exercise. The information included details on how the public would be notified and the initial actions which should be taken in the event of a radiological emergency. A rumor control program was also in place.

The licensee activated a near site (Port Gibson, Miss.) Emergency News Media Center (ENMC). The facility was adequately equipped. Coordination of information between the State and licensee was timely. Both licensee and State groups worked together effectively in the ENMC. Written press releases were prepared and issued from the ENMC. Releases issued were timely, and adequately reflected plant emergency conditions and mitigating actions taken or planned. Corporate and State spokesmen conducted periodic

press briefings. The briefings were technically accurate and were presented in a manner readily understood by laymen. Visual aids were provided which effectively defined the simulated accident and the local areas within the plume exposure 10 mile EPZ impacted by radiological releases. A conference telephone link was established between the ENMC, Mississippi Emergency Management Agency (MEMA) Operations Center, and the MP&L general office during the press briefing. This feature continues to enhance the exchange of news information.

No violations or deviations were identified.

13. Radiological Exposure Control (82301)

This area was observed to determine that methods for controlling radiological exposures during an emergency were established and implemented for emergency workers, and that such methods included exposure guidelines consistent with EPA recommendations as required by 10 CFR 50.47(b)(11) and specific criteria promulgated in Section II.K of NUREG-0654.

An inspector noted that radiological exposures were controlled throughout the exercise by issuing supplemental dosimeters to emergency workers and by conducting periodic radiological surveys in the emergency response facilities. Exposure guidelines were in place for various categories of emergency actions, and adequate protective clothing and respiratory protection were available if needed.

No violations or deviations were identified.

14. Recovery and Reentry Planning (82301)

This area was observed to assure that general plans were made for recovery and reentry as required by 10 CFR 50.47(b)(13), Paragraph IV.H of Appendix E to 10 CFR 50, and specific criteria in Section II.M of NUREG-0654.

The licensee developed general plans and procedures for reentry and recovery which addressed both existing and potential conditions. The plans contained the position/title, authority, and responsibilities of each key individual in the recovery organization. The plans and criteria addressing deescalation of the emergency were consistent with the scope of the exercise and the scenario developed therefor.

No violations or deviations were identified.

15. Exercise Critique (82301)

The licensee's critique of the emergency exercise and weaknesses observed during their emergency response were formally presented to licensee management for corrective actions as required by 10 CFR 50.47(b)(14), Paragraph IV.E of Appendix E to 10 CFR 50 and specific criteria promulgated in Section II.N of NUREG-0654.

The exercise critique was conducted on December 4, 1985. Licensee management, key exercise participants, and NRC representatives were present. The licensee discussed areas of the exercise which required corrective action and improvements. The inspectors determined that the critique was comprehensive, and adequately addressed the weaknesses identified in their emergency response during the exercise.

All findings identified herein were discussed in detail with licensee representatives. A meeting of NRC and licensee management was later held in Region II on December 13, 1985, to further discuss the referenced findings and the licensee's commitments to implement required corrective actions including training, retraining and remedial drills, where indicated.

No violations or deviations were identified.

16. Federal Emergency Management Agency (FEMA) Report (82301)

Reports of FEMA Regions IV and VI evaluation of offsite emergency preparedness will be provided by a separate transmittal.

17. Public Meetings (82301)

Public critiques of the exercise were held in St. Joseph, Louisiana and Port Gibson, Mississippi. Agencies participating in the critiques included the licensee, States and local support groups, FEMA Regions IV and VI, and the NRC.

18. Followup Items (92701)

The following items were reviewed:

- a. (Closed) IFI 50-416/05-04-01: Failure to recommend protective action consistent with EPP-1-0-S-01-5, Following General Emergency Declaration. Licensee action regarding the subject finding was observed during this inspection. This item is closed consistent with observation findings.
- b. (Closed) Violation 50-416/85-15-01: Failure to Train Offsite Firefighters. See Paragraph 3, above.